STARK COUNTY ENGINEER

Keith A. Bennett, P.E., P.S.

5165 Southway Street, S.W.
Canton, Ohio 44706-1998
Phone (330) 477-6781
Fax (330) 477-3926

Werner Church Road Bridge Replacement Project
PID 81282
Public Involvement Meeting – October 25, 2012

Purpose and Need for the project: The Werner Church Road Bridge over the Nimishillen Creek was constructed in 1957. The bridge has a current sufficiency rating of 25.7 and is classified as Deficient. The Stark County Engineer has posted weight limit restrictions and performed some maintenance repairs in the summer of 2012 to keep the bridge in service. The proposed project will replace the existing truss bridge on a modified location. The primary purpose of the transportation improvement is to preserve the Werner Church Road crossing over the Nimishillen Creek and establish current design standards to the Werner Church Road crossing and along its approach roadways in Plain Township.

Once the Werner Church Road bridge is replaced the structure will likely have a service life of 70 years or more, therefore the location of this structure, and the location of the river crossing is important. Any future improvements to Werner Church Road, Middlebranch Avenue, or Applegrove Street in this area will be controlled by the location of the bridge.

Additionally, as a result of coordination with SCATS and the Stark County Regional Planning Commissioner (RPC), we are aware of the large number of future residential lots to the east and slightly north of the bridge between Werner Church Road and Bentler Avenue.

Furthermore, the proximity of the two intersections on Middlebranch Avenue (at Applegrove Street and Werner Church Road) is a concern in terms of their operation with the expected traffic in the area. As traffic increases, poor operation and delays will result. For this reason the project was expanded to study and address these intersection locations to more efficiently consider and maximize the investment in the area transportation system and better serve the public.

As part of the bridge replacement, SCEO (Stark County Engineer) along with the Ohio Department of Transportation (ODOT) and the Stark County Area Transporation Study (SCATS) has reviewed the adjoining transportation network. Specifically, we are concerned about the traffic volumes on Middlebranch, and the close proximity of the

intersections of Werner Church Road and Applegrove Street on Middlebranch Avenue. Those intersections are approximately six hundred and seventy feet (670') apart. As traffic volumes become higher, the proximity of those two intersections could become more of a problem.

The Werner Church Road bridge project is funded with bridge replacement funds from the Federal Highway Administration (FHWA). As a requirement that goes along with the use of federal funds, the project team must prepare and review future traffic projections within the limits of a project at a time equal to 20 years after likely construction. For the Werner Church Road bridge project, we are looking at likely traffic volumes out to the year 2035. The expected service life of the new bridge is even longer than that.

Specifically for this project, the likely traffic generated from those future residential lots to the east of the project was accounted for in our traffic projections for this project. In conjunction with ODOT and SCATS we also attempted to analyze the volumes of traffic that are travelling east and west along Werner Church Road and Applegrove Street, and thus making the "jog" at Middlebranch Avenue.

Taking all these factors into account, along with performing environmental studies relating to Ecological Resources, Cultural and Historical Resources and Hazardous Material database searches, has led the project team to prepare three alternatives for the replacement of the Werner Church Bridge.

The efficiency of an intersection is measured by the level of service (LOS) that quantifies the delays motorists experience as they traverse an intersection. The LOS information is an indication of the effect of several traffic flow factors including speed, travel time and delay, interruptions to traffic flow, freedom to maneuver, driver comfort and convenience and safety and operating costs. A LOS of A is considered excellent, a LOS of C is considered average, and a LOS of F is considered undesirable. Each of these alternatives includes replacement of the Werner Church Bridge and provides an acceptable Level of Service for expected traffic in the design year of 2035.

Alternative 1: This alternative essentially replaces the Werner Church Road bridge close to its current location, and results in the intersections of Applegrove Street and Werner Church Road with Middlebranch Avenue to be offset as they are currently. The alignment of the bridge is somewhat modified from existing in order to meet design criteria for the existing 55 MPH speed limit on Werner Church Road. As part of this project, our office performed a speed study on Werner Church to see if the speed should be reduced, however, the results of that study were reviewed by ODOT, as required, and the speed limit of 55 MPH was not revised. Since we are required to provide a design that meets the speed limit, this results in a more gentle curvature of Werner Church Road

at the bridge location. Due to the alignment of the creek, this alternative requires a significantly long and costly retaining wall near the bridge to keep the roadway side slopes out of the creek. In terms of traffic considerations, this alternative provides left turn lanes on Middlebranch Avnue at both the Applegrove Street intersection, and the Werner Church Road intersection, and provides turn lanes on the side roads (Applegrove Street and Werner Church Road). The estimated cost of this alternative is $4,871,000.

Alternative 2: This alternative realigns Werner Church Road and intersects with Middlebranch Avenue directly across from Applegrove Street. This realignment would create one four-leg intersection. Cul-de-sacs on existing Werner Church Road would be constructed on either side of the creek in this alternative. Traffic studies for this alternative have indicated the need for left turn lanes on all four legs of the intersection in the design year. The cost of this alternative is estimated to be $ 4,996,000.

Alternative 3: This alternative best addresses the bridge deficiences and the operational traffic issues of the adjacent roadways in the opinion of the project team. This alternative is very similar to Alternative 2, in that it realigns Werner Church Road to form one intersection with Middlebranch Avenue at Applegrove Street. The difference between Alternative 3 and Alternative 2 is a horizontal curve that removes the need for a retaining wall to the west of the new bridge. The cost of this alternative is estimated to be $ 4,108,000.

All the alternatives can be viewed on our website, in addition to the displays that will be present at the meeting, and there is also a matrix in the project engineering study that summarizes all of the alternatives.

Next Project Step: Following this public involvement meeting, and the receipt of comments, those comments will be reviewed and addressed as appropriate. We will then select a preferred alternative, and proceed with final design. A Commissioners' Viewing and Hearing will be held on the preferred alternative in the next 12 to 18 months once final design is underway, and specific property impacts can be identified in more detail.

The selection of a preferred alternative will take into account public comments that we receive at and after this public involvement meeting. All three alternatives are believed to have similar costs. Furthermore, based on traffic studies and analyses, we believe all three alternatives will provide adequate traffic flow or level of service (LOS) in the design year. Therefore public involvement and support for the selected alternative is important. Currently, the Stark County Engineer's Office (SCEO) favors Alternative 3. This alternative removes the offset intersections on Middlebranch Avenue, and provides for improved traffic flow in the east west direction. Furthermore, the construction cost of this alternate appears to be slightly less than the others due to the elimination of a large retaining wall.

Information pertaining to the preferred alternative will be provided to the public through various means. Our office will send out a press release with the preferred alternative identified. Additionally, we will announce the preferred alternative and the results of the public involvement/comments on our website. We will also provide the attendees of this public involvement meeting with a direct letter indicating the selected preferred alternative.

At the conclusion of the meeting, please take and fill out a comment form. You can leave it with us or mail it to the Stark County Engineer's Office by the date indicated. The project alternatives are shown on our website at www.engineer.co.stark.oh.us. Simply go to the "Projects" tab on the left. Click on that tab, and you will see the Werner Church Bridge Project tab.